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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/563,922

01/09/2006

Fransiscus Arnoldus Vermeulen

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS

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BRIARCLIFF MANOR, NY 10510

EXAMINER

ALEMU, EPHREM

ART UNIT

PAPER NUMBER

2821

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/563,922	<b>Applicant(s)</b> VERMEULEN ET AL.	
	<b>Examiner</b> Ephrem Alemu	<b>Art Unit</b> 2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 January 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>01/09/2006; 02/19/2007</u> .                                  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “92” has been used to designate both the “control circuit” and “an input to the control circuit”. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

2. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Objections***

3. Claim 19 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, claim 19 has not been further treated on the merits.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 2821

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 11, respectively, recite the limitation “a method (apparatus) for driving a gas discharge lamp (1), specifically a HID lamp, more specifically a metal halide lamp, most specifically a metal halide lamp with an aspect ratio larger than 3 or even 4”.

However, the aforementioned claimed limitation lacks clarity in the meaning and scope for the following reasons:

It is not clear the method of driving gas discharge lamp applied to which specific type of lamp.

Is the method applied for driving gas discharge lamp of the HID lamp?

Is the method applied for driving gas discharge lamp of the metal halide lamp?

Is the method applied for driving gas discharge lamp of the metal halide lamp with an aspect ratio larger than 3 or even 4?

Is it applied to all? Is it applied for two of the three? And etc.

Since the scope of the claimed limitation cannot be determined, the claims are indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 19, also recites, a gas discharge lamp (1), specifically a HID lamp, more specifically a metal halide lamp, most specifically a metal halide lamp with an aspect ratio larger than 3 or even 4, preferably a high-pressure lamp having a lamp pressure over 10 atm”. Since the

Art Unit: 2821

scope of the claimed limitation cannot be determined similar to the reason given above for claims 1 and 11, the claim is indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention

Claims 2-10 and 12-18 are rejected as being directly or indirectly dependent over rejected base claims 1 and 11.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 2-4, 7, 11, 12, 14, 16 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Derra et al. (US 5,262,701).

Re claims 1, 7 and 11, Derra discloses a driving apparatus for driving a gas discharge lamp (i.e., circuit for operating high pressure lamp), the apparatus comprising: current generating means (I, II) for generating a current with a substantially constant current intensity; commutating means (III) for receiving the current, and having an output for connecting to a lamp (L), the commutating means (III) being arranged for commutating the current; the driving apparatus (IV, V, VI) being designed to execute a method for supplying the lamp a commutating DC current having a duty cycle (D) and an average current intensity at a certain electrical output power; by varying the average current intensity and the electrical output power in order to vary the color temperature of the lamp (Figs. 1-3; abstract; col. 1, lines 38-57; Col. 2, line 44- Col. 4, line 27; wherein the average current intensity is changed by changing the duty cycle (D)).

Re claim 2, Derra further teaches when the average current intensity is changed such as to effectively result in an increase in the color temperature of the lamp, the electrical output power is increased (Figs. 1-3; Col. 3, line 20- Col. 4, line 7).

Re claims 3 and 4, Derra further teaches the average current intensity and the electrical output power are varied within a current range and a power range, respectively, having upper and lower current limits and upper and lower power limits, respectively, such that the color temperature of the lamp is varied within a temperature range having an upper temperature limit and a lower temperature limit; wherein the electrical output power is set at the upper power limit when the color temperature of the lamp is at the upper temperature limit, and wherein the electrical output power is set at the lower power limit when the color temperature of the lamp is at the lower temperature limit; wherein, at least within a part of the temperature range, the electrical output power is varied proportional to variations in the average current intensity (Figs. 1-3; Col. 3, lines 36-64).

Re claims 12 and 14, Derra further discloses the driver (i.e., circuit for operating high pressure lamp) is provided with a control circuit (IV) having a control input for receiving a control signal (A) and having a control output for controlling the driver (i.e., circuit for operating high pressure lamp), and wherein the control circuit (IV) is responsive to a control signal (A) received at its control input to control the driver (i.e., circuit for operating high pressure lamp) such as to set an average current intensity in accordance with the control signal (A) (Fig. 1; Col. 2, lines 44-68; wherein the control circuit (IV) is designed to control the commutating means (III) such as to set a certain value of the duty cycle (D) in order to set a certain value of the average current intensity).

Re claims 16 and 17, Derra further discloses the control circuit (IV) is designed to control a down-converter (II) in order to set the output current magnitude at a fixed value independent from the average current intensity; wherein the control circuit (IV) comprises a current magnitude selection input (E, F), and is responsive to a command input received at this second input (E, F) to set the fixed value (Col. 2, line 44- Col. 3, line 44).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Derra et al. (US 5,262,701).

Re claims 13 and 15, as applied above to claims 12 and 14 above, Derra further discloses the control circuit (IV) is designed to control a down-converter (II) in order to set the electrical output power on the basis of the relationship between average current intensity and electrical output power.

Derra does not disclose a memory for containing a relationship between average current intensity and electrical output power.

However, providing a memory for containing a relationship between average current intensity and electrical output power in order for the controller (IV) to control the down-converter (II) in order to set the electrical output power on the basis of the relationship stored in the memory would have been within a routine skill of an artisan.

Art Unit: 2821

10. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Derra et al. (US 5,262,701) in view of Kelly et al. (US 6,369,518).

Re claim 18, Derra discloses the driving apparatus as discussed above in claim 12, except the driving apparatus adapted for variable current-controlled particle distribution shift. In the same field of endeavor, Kelly teaches that varying the duty cycle away from 50-50 to either 10-90 or 90-10 will vary the color temperature in a controlled manner without affecting the color rendering index of the lamp (Col. 4, line 26- Col. 5, line 55).

Therefore, arranging control setting device (i.e., variable duty cycle waveform generator) to the control input of the control circuit (IV) of Derra's driving apparatus would have been obvious for the purpose of varying the color temperature in a controlled manner without affecting the color rendering index as is evidenced by Kelly.

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kamoi et al. (US 7,015,655); and Yamauchi et al. (US 6,914,395); Jackson et al. (US 6,555,962); Zhu et al. (US 6,242,851); also teach similar inventive subject matter.

### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ephrem Alemu whose telephone number is (571) 272-1818. The examiner can normally be reached on M-F 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W Owens can be reached on (571) 272-1662. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.



Art Unit: 2821

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EA  
3-19-08

/Douglas W Owens/  
Supervisory Patent Examiner, Art Unit 2821  
March 25, 2008